REFERENCE NO. 3

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Applicant: Fujitu K.K. et al.
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Title of the Invention:

Roundabout Way System for Frame Relay Lines

Abstract of the Disclosure and the part referred to by the Examiner:

Figs.1(a), 1(b) and 1(c) show three different embodiments according to the present invention.

The network is equipped with no data resending means.

Referring to Fig.1(a), Station A comprises roundabout way selecting means 20a, "returning to the original line" means 30a and transmitting-and-receiving means; Station B comprises line quality checking means 10a and transmitting-and-receiving means; Station C comprises transmitting-and-receiving means. Normal lines are indicated by α and roundabout lines are indicated by β.

Line quality checking means 10a in Station B continues to determine the line quality in terms of the ratio of error frames to all frames received for a predetermined length of time, and is responsive to the inquiry from roundabout way selecting means 20a of Station A for informing of the checking result. Roundabout way selecting means 20a of Station A asks line quality checking means 10a of Station B of the line quality at regular intervals, and is responsive to a worse line quality informed for changing the original normal line for the roundabout line.

【0003】

Prior Art:

A conventional packet communication system uses analogue circuits, the circuit quality of which is low, and therefore, the exchange stations are equipped with multi-checking functions as for instance, follows:

each packet is identified by its packet number and data number when a given station is handling the packet;

in case that a packet error appears between the sending and receiving stations, the receiving station informs the sending station of the appearance of errors, asking the sending station to resend same data, and after the sending station sends vainly same

data a predetermined times, receiving no response of confirmation from the receiving station, the sending station uses a roundabout line to resend same data. On the other hand the sending station sends checking packets to the receiving station via the original line at regular intervals, and the sending station changes the roundabout line for the original line, provided that the sending end receives the reply of confirmation from the receiving end.